

[0015] FIGS. 7A and 7B are cross-sectional top perspective views of an array trigger mechanism in accordance with embodiments of the present disclosure.

[0016] FIG. 8 is an exploded side view of an electroporation module in combination with a base assembly in accordance with an embodiment of the present disclosure.

[0017] FIG. 9 is a top cross-sectional view of a jet injection and EP combination device in accordance with an embodiment of the present disclosure.

[0018] FIGS. 10A-10C depict a side view of grind angles on array electrodes in accordance with embodiments of the present disclosure.

[0019] FIGS. 10D-10F depict a front view of the array electrodes of FIG. 10A-10C.

[0020] FIG. 11 depicts a cross sectional side view of different grind angles on array electrodes penetrating the skin surface during an EP treatment in accordance with an embodiment of the present disclosure.

[0021] FIG. 12 is a partial cross-sectional view of a jet injection and EP combination device in accordance with an embodiment of the present disclosure.

[0022] FIG. 13 is a partial cross-sectional view of a jet injection and EP combination device in accordance with an embodiment of the present disclosure and depicts a plunger in an assembled position.

[0023] FIG. 14 is a close-up view of the circle "A" of FIG. 13.

[0024] FIG. 15 is a partial cross-sectional view of a jet injection and EP combination device in accordance with an embodiment of the present disclosure and depicts a plunger in a depressed position.

[0025] FIG. 16 is a close-up view of the circle "B" of FIG. 15.

[0026] FIG. 17 is a perspective view of a propulsion cartridge in accordance with an embodiment of the present disclosure.

[0027] FIG. 18 is a cross sectional rear view of the line "A" of FIG. 17.

[0028] FIG. 19 is a perspective view of a propulsion cartridge in accordance with an embodiment of the present disclosure.

[0029] FIG. 20 is a cross sectional front view of the line "B" of FIG. 19.

[0030] FIGS. 21A and 21B depict nucleoprotein IgG end point titers at days 15 and 22 measured by ELISA Bars between groups represent a statistical difference of $p < 0.01$ ** or non-significant (ns) as measured by at-test.

[0031] FIGS. 22A and 22B depict RSV-F antigen IgG end point titers at days 15 and 22 measured by ELISA Bars between groups represent a statistical difference of $p < 0.001$ (***) or non-significant (ns) as measured by Student's t-test.

[0032] FIGS. 23A and 23B depict nucleoprotein IgG end point titers at days 15 and 22 measured by ELISA Bars between groups represent a statistical difference of $p < 0.01$ ** or non-significant (ns) as measured by at-test.

[0033] FIGS. 24A and 24B depict RSV-F antigen IgG end point titers at days 15 and 22 measured by ELISA Bars between groups represent a statistical difference of $p < 0.001$ (***) or non-significant (ns) as measured by Student's t-test.

DETAILED DESCRIPTION

[0034] In the following detailed description, reference is made to the accompanying drawings which form a part hereof, and which are shown by way of illustration embodi-

ments that may be practiced. It is to be understood that other embodiments may be utilized and structural or logical changes may be made without departing from the scope of the disclosure. Therefore, the following detailed description is not intended to limit the scope of the present disclosure.

[0035] The following abbreviated, or shortened, definitions are given to help the understanding of the preferred embodiments of the present disclosure. The abbreviated definitions given here are by no means exhaustive nor are they contradictory to the definitions as understood in the field or dictionary meaning. The abbreviated definitions are given here to supplement or more clearly define the definitions known in the art.

[0036] The term "current" as used herein refers to the flow or rate of flow of electric charge in a conductor or medium between two points having a difference in potential, generally expressed in amperes.

[0037] The term "ampere" as used herein refers to the standard unit for measuring the strength of an electric current. It is the rate of flow of charge in a conductor or conducting medium of one coulomb per second.

[0038] The term "coulomb" as used herein refers to the meter-kilogram-second unit of electric charge equal in magnitude to the charge of 6.28×10^{18} electrons or the charge transported through a conductor by a current of one ampere flowing for one second.

[0039] The term "voltage" as used herein refers to the electromotive force, or difference in electrical potential, expressed in volts, which are the practical units of electromotive force or difference in potential between two points in an electric field that requires one joule of work to move a positive charge of one coulomb from the point of lower potential to the point of higher potential.

[0040] The term "power" as used herein refers to a source of physical or mechanical force or energy that is at, or can be put to, work, e.g. "electric power, water power."

[0041] The term "impedance" as used herein refers to the total opposition offered by an electric circuit to the flow of an alternating current of a single frequency. It is a combination of resistance and reactance and is measured in ohms.

[0042] The term "field" as used herein refers to physical quantity specified at points throughout a region of space.

[0043] The term "amplitude" as used herein refers to the extreme range of a fluctuating quantity, as an alternating current or the swing of a pendulum, generally measured from the average or mean to the extreme. It is the amount or degree to which a thing extends.

[0044] The term "frequency" as used herein refers to the number of periodic oscillations, vibrations, or waves per unit of time. It is usually expressed in hertz (Hz).

[0045] "Agent" may mean a polypeptide, a polynucleotide, a small molecule, a macromolecule, or any combination thereof. The agent may be a recombinant nucleic acid sequence encoding an antibody, a fragment thereof, a variant thereof, or a combination thereof, as detailed in PCT/US2014/070188, which is incorporated herein by reference. The small molecule may be a drug, for example The drug may be chemically synthesized. "Agent" may mean a composition comprising a polypeptide, a polynucleotide, a small molecule, or any combination thereof. The composition may comprise a recombinant nucleic acid sequence encoding an antibody, a fragment thereof, a variant thereof, or a combination thereof, as detailed in PCT/US2014/070188, which is incorporated herein by reference. The agent may be formu-